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Engineer Research and
Development Center

Map Server

Description and Background

Consistent with its role of providing the **Common Topographic Operating Environment (CTOE)** for the **Army Battle Command Systems (ABCS)** community, **Project Director, Combat Terrain Information Systems (PD CTIS)** has developed and fielded Map Server capabilities to support the dissemination of a common geospatial data set to all systems.

Map Server has three primary sources of data: the **National Imagery and Mapping Agency (NIMA)**, commercial data, and data derived by **Army Terrain Teams**. NIMA provides digital elevation, feature, and image data, commercial data consists mainly of vectors, high-resolution imagery, and video formats, and the Terrain Teams provide both digital data and **Tactical Decision Aids (TDAs)** generated on the DTSS.

System

The Map Server provides a web-based, easy to use interface that allows clients to pull several geospatial data and/or product types stored in the DTSS-L or DTSS-B **Redundant Array of Independent Disks (RAIDs)** down to their systems. The Map Server uses state-of-the-art commercial software packages including **ESRI's ArcIMS** Internet server and **ArcSDE** database engine, as well as **Informix's Relational Database Management System (RDBMS)** to store, manage, and exchange this data. ArcIMS and ArcSDE are also components of the **Commercial Joint Mapping Toolkit (C/JMTK)**, a NIMA program to enhance geospatial data interoperability across DoD systems, built around ESRI components. This commonality will allow greater sharing of data and services between Map Server and systems using C/JMTK.

Key Capabilities

The Map Server, primarily located within the DTSS-Light and DTSS-Base, but also deployed in some non-DTSS vehicles, will:

1. Provide geospatial information (electronic map background images, digital elevation data, feature data, imagery, and **tactical decision aids (TDAs)**) to ABCS client systems.
2. Provide the capability to receive, validate, store, and organize geospatial data, including both NIMA data and data in common commercial formats.
3. Provide, maintain, and manage the CTOE at Echelons above Corps (EAC), Corps, Division, and Brigade, providing database management for all geospatial data used within the ABCS community.
4. Maintain terrain data integrity through the replication of all geospatial data held at all echelons.
5. Manage geospatial data holdings for ABCS.

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